

WHAT IS CLAIMED IS:

1. An information processing apparatus for processing a plurality of entry information elements transmitted from at least one terminal, comprising:
 - 5 period setting means for setting an output operation period after specifying an output start time and an output end time collectively defining said output operation period;
 - 10 time keeping means for keeping time including said output start time specified by said period setting means and said output end time specified by said period setting means;
 - 15 information receiving means for receiving said entry information elements transmitted from said terminal;
 - 20 information encrypting means for encrypting said entry information elements received from said information receiving means before producing encrypted entry information elements;
 - 25 information storing means for storing said encrypted entry information elements produced by said information encrypting means; and
 - 30 information decrypting means for decrypting said encrypted entry information elements stored in said information storing means during said output operation period starting from said output start time kept by said time keeping means until said output end time kept by said time keeping means.
2. An information processing apparatus as set forth in claim 1, which further comprises:
 - 25 time obtaining means for obtaining standard time information indicative of standard time kept by a standard clock; and
 - 30 time adjusting means for adjusting said time keeping means to have said time keeping means synchronized to said standard time on the basis of said standard time information obtained by said time obtaining means.
3. An information processing apparatus as set forth in claim 2, in which said time obtaining means includes a standard time receiver for receiving said standard time information transmitted from a standard time transmitter at a predetermined frequency.
- 35 4. An information processing apparatus as set forth in claim 3, in which said standard time receiver is of a waterproof and heat resistant construction.

5. An information processing apparatus as set forth in claim 2, which further comprises: error storing means for storing error information indicative of an error of said time kept by said time keeping means with respect to said standard time on the
5 basis of said standard time information obtained by said time obtaining means.

6. An information processing apparatus as set forth in claim 2, which further comprises:
position obtaining means for obtaining position information indicative of a
10 position thereof, in which said time adjusting means is operative to adjust said time keeping means to have said time keeping means synchronized to said standard time on the basis of said position information obtained by said position obtaining means.

7. An information processing apparatus as set forth in claim 2, which
15 said time obtaining means is placed in a first time zone while said terminal is placed in a second time zone different from said first time zone,
said period setting means, said information receiving means, and said information storing means have respective internal clocks,
said time adjusting means is operative to calculate alternative standard time
20 in accordance with said standard time information obtained by said time obtaining means in consideration of a time difference between said first time zone where said time obtaining means is operative to obtain said standard time information indicative of standard time, and said second time zone where said terminal is placed, and adjust each of said internal clocks forming part of said period setting means, said
25 information receiving means, and said information storing means to have each of said period setting means, said information receiving means, and said information storing means synchronized to said alternative standard time thus calculated.

8. An information processing apparatus as set forth in claim 1, in which
30 said period setting means is operative to set an input operation period after specifying an input start time and an input end time collectively defining said input operation period, and said time keeping means is operative to keep time including said input start time specified by said period setting means and said input end time specified by said period setting means, and
35 said information receiving means is operative to receive said entry information elements transmitted from said terminal during said input operation period starting from said input start time kept by said time keeping means until said

input end time kept by said time keeping means.

9. An information processing apparatus as set forth in claim 1, which further comprises:

5 instruction accepting means for accepting an output instruction from said terminal, and in which

10 said information decrypting means is operative to decrypt said encrypted entry information elements stored in said information storing means in response to said output instruction accepted by said instruction accepting means during said output operation period starting from said output start time kept by said time keeping means until said output end time kept by said time keeping means.

15 10. An information processing apparatus as set forth in claim 1, in which each of said entry information elements is indicative of voting information elements.

11. An information processing apparatus as set forth in claim 1, in which each of said entry information elements is indicative of bidding information elements.

20 12. An information processing system comprising a plurality of information processing apparatuses for processing a plurality of entry information elements transmitted from at least one terminal,

said information processing apparatuses each comprising:

25 period setting means for setting an output operation period after specifying an output start time and an output end time collectively defining said output operation period;

30 time keeping means for keeping time including said output start time specified by said period setting means and said output end time specified by said period setting means;

information receiving means for receiving said entry information elements transmitted from said terminal;

35 information encrypting means for encrypting said entry information elements received from said information receiving means before producing encrypted entry information elements;

information storing means for storing said encrypted entry information elements produced by said information encrypting means;

information decrypting means for decrypting said encrypted entry information elements stored in said information storing means during said output operation period starting from said output start time kept by said time keeping means until said output end time kept by said time keeping means;

5 time obtaining means for obtaining standard time information indicative of standard time kept by a standard clock; and

 time adjusting means for adjusting said time keeping means to have said time keeping means synchronized to said standard time on the basis of said standard time information obtained by said time obtaining means; whereby

10 said time obtaining means of each of said information processing apparatuses is operative to obtain said standard time information indicative of standard time kept by the standard clock to ensure that said time keeping means of each of said information processing apparatuses is synchronized to said standard time on the basis of said standard time information obtained by said time obtaining means.

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13. An information processing method of processing a plurality of entry information elements transmitted from at least one terminal, comprising the steps of:

 (a) setting an output operation period after specifying an output start time and an output end time collectively defining said output operation period;

20 (b) keeping time including said output start time specified in said step (a) and said output end time specified in said step (a);

 (c) receiving said entry information elements transmitted from said terminal;

 (d) encrypting said entry information elements received in said step (c) before producing encrypted entry information elements;

25 (e) storing said encrypted entry information elements produced in said step

 (d) in a predetermined storage portion; and

 (f) decrypting said encrypted entry information elements stored in said step

 (e) during said output operation period starting from said output start time kept in said step (b) until said output end time kept in said step (b).

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14. An information processing method as set forth in claim 13, which further comprises the steps of:

 (g) obtaining standard time information indicative of standard time kept by a standard clock; and

35 (h) adjusting said step (b) to have said time kept in said step (b) synchronized to said standard time on the basis of said standard time information obtained in said step (g).

15. An information processing method as set forth in claim 14, in which said step
(g) has the step of having a standard time receiver receive said standard time
information transmitted from a standard time transmitter at a predetermined
5 frequency.

16. An information processing method as set forth in claim 15, in which said
standard time receiver is of a waterproof and heat resistant construction.

10 17. An information processing method as set forth in claim 14, which further
comprises the step of: (i) storing error information indicative of an error of said time
kept in said step (b) with respect to said standard time on the basis of said standard
time information obtained in said step (g) in a removable storage portion.

15 18. An information processing method as set forth in claim 14, which further
comprises the step of:
20 (j) obtaining position information indicative of a position thereof, in which
said step (h) has the step of adjusting said step (b) to have said time kept in said step
(b) synchronized to said standard time on the basis of said position information
obtained in said step (j).

19. An information processing method as set forth in claim 14, which
said standard clock is placed in a first time zone while said terminal is placed
in a second time zone different from said first time zone,
25 said step (a), said step (c), and said step (e) are performed in accordance with
respective internal clocks,
30 said step (h) has the step of calculating alternative standard time in
accordance with said standard time information obtained in said step (g) in
consideration of a time difference between said first time zone where said standard
clock is placed and said second time zone where said terminal is placed, and adjusting
each of said internal clocks to have each of said step (a), said step (c), and said step
(e) performed in synchronization with said alternative standard time thus calculated.

20. An information processing method as set forth in claim 13, in which
35 said step (a) has the step of (a1) setting an input operation period after
specifying an input start time and an input end time collectively defining said input
operation period, and said step (b) has the step of keeping time including said input

start time specified in said step (a1) and said input end time specified in said step (a1), and

5 said step (c) has the step of receiving said entry information elements transmitted from said terminal during said input operation period starting from said input start time kept in said step (b) until said input end time kept in said step (b).

21. An information processing method as set forth in claim 13, which further comprises the step of:

10 (k) accepting an output instruction from said terminal, and in which
 said step (f) has the step of decrypting said encrypted entry information elements stored in said step (e) in response to said output instruction accepted in said step (k) during said output operation period starting from said output start time kept in said step (b) until said output end time kept in said step (b).

15 22. An information processing method as set forth in claim 13, in which
 each of said entry information elements is indicative of voting information elements.

20 23. An information processing method as set forth in claim 13, in which
 each of said entry information elements is indicative of bidding information elements.

24. An information processing method of processing a plurality of entry information elements transmitted from at least one terminal, comprising:

25 a preparing step of preparing a plurality of a plurality of information processing apparatuses, each of said information processing apparatuses comprising:
 period setting means for setting an output operation period after specifying an output start time and an output end time collectively defining said output operation period;
 time keeping means for keeping time including said output start time specified by said period setting means and said output end time specified by said period setting means;
 information receiving means for receiving said entry information elements transmitted from said terminal; information encrypting means for encrypting said entry information elements received from said information receiving means before producing encrypted entry information elements; information storing means for storing said encrypted entry information elements produced by said information encrypting means; information decrypting means for decrypting said encrypted entry information elements stored in said information storing means during said output

operation period starting from said output start time kept by said time keeping means until said output end time kept by said time keeping means; time obtaining means for obtaining standard time information indicative of standard time kept by a standard clock; and time adjusting means for adjusting said time keeping means to have said

5 time keeping means synchronized to said standard time on the basis of said standard time information obtained by said time obtaining means, and

a time obtaining step of having said time obtaining means of each of said information processing apparatuses obtain said standard time information indicative of standard time kept by the standard clock to ensure that said time keeping means of 10 each of said information processing apparatuses is synchronized to said standard time on the basis of said standard time information obtained by said time obtaining means.

25. An information processing computer program product comprising a computer usable storage medium having computer readable code embodied therein 15 for processing a plurality of entry information elements transmitted from at least one terminal, wherein said computer readable code comprising:

a first program product code for setting an output operation period after specifying an output start time and an output end time collectively defining said output operation period;

20 a second program product code for keeping time including said output start time specified by said first program product code and said output end time specified by said first program product code;

a third program product code for receiving said entry information elements transmitted from said terminal;

25 a fourth program product code for encrypting said entry information elements received by said third program product code before producing encrypted entry information elements;

a fifth program product code for storing said encrypted entry information elements produced by said fourth program product code in a predetermined storage 30 portion; and

a sixth program product code for decrypting said encrypted entry information elements stored by said fifth program product code during said output operation period starting from said output start time kept by said second program product code until said output end time kept by said second program product code.

35 26. An information processing computer program product as set forth in claim 25, which further comprises:

a seventh program product code for obtaining standard time information indicative of standard time kept by a standard clock; and

an eighth program product code for adjusting said second program product code to have said time kept by said second program product code synchronized to said standard time on the basis of said standard time information obtained by said seventh program product code.

27. An information processing computer program product as set forth in claim 26, in which said seventh program product code has a program product code for having a standard time receiver receive said standard time information transmitted from a standard time transmitter at a predetermined frequency.

28. An information processing computer program product as set forth in claim 27, in which said standard time receiver is of a waterproof and heat resistant construction.

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29. An information processing computer program product as set forth in claim 26, which further comprises a ninth program product code for storing error information indicative of an error of said time kept by said second program product code with respect to said standard time on the basis of said standard time information obtained by said seventh program product code in a removable storage portion.

30. An information processing computer program product as set forth in claim 26, which further comprises:

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a tenth program product code for obtaining position information indicative of a position thereof, in which said eighth program product code has a program product code for adjusting said second program product code to have said time kept by said second program product code synchronized to said standard time on the basis of said position information obtained by said tenth program product code.

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31. An information processing computer program product as set forth in claim 26, which

said standard clock is placed in a first time zone while said terminal is placed in a second time zone different from said first time zone,

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said first program product code, said third program product code, and said fifth program product code are performed in accordance with respective internal clocks,

said eighth program product code has a program product code for calculating

alternative standard time in accordance with said standard time information obtained by said seventh program product code in consideration of a time difference between said first time zone where said standard clock is placed and said second time zone where said terminal is placed, and adjusting each of said internal clocks to have each 5 of said first program product code, said third program product code, and said fifth program product code performed in synchronization with said alternative standard time thus calculated.

32. An information processing computer program product as set forth in claim 25,
10 in which

said first program product code has a twelfth program product code for setting an input operation period after specifying an input start time and an input end time collectively defining said input operation period, and said second program product code has a program product code for keeping time including said input start 15 time specified by said twelfth program product code and said input end time specified by said twelfth program product code, and

said third program product code has a program product code for receiving said entry information elements transmitted from said terminal during said input operation period starting from said input start time kept by said second program product code until said input end time kept by said second program product code.
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33. An information processing computer program product as set forth in claim 25, which further comprises:

an eleventh program product code for accepting an output instruction from
25 said terminal, and in which

said sixth program product code has a program product code for decrypting said encrypted entry information elements stored by said fifth program product code in response to said output instruction accepted by said eleventh program product code during said output operation period starting from said output start time kept by said 30 second program product code until said output end time kept by said second program product code.

34. An information processing computer program product as set forth in claim 25, in which

35 each of said entry information elements is indicative of voting information elements.

35. An information processing computer program product as set forth in claim 25, in which

each of said entry information elements is indicative of biding information elements.

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36. An information processing computer program product comprising a computer usable storage medium having computer readable code embodied therein for processing a plurality of entry information elements transmitted from at least one terminal, wherein said computer readable code comprising:

10 a fifteenth program product code for operating a plurality of a plurality of information processing apparatuses, each of said information processing apparatuses comprising: period setting means for setting an output operation period after specifying an output start time and an output end time collectively defining said output operation period; time keeping means for keeping time including said output start time specified by said period setting means and said output end time specified by said period setting means; information receiving means for receiving said entry information elements transmitted from said terminal; information encrypting means for encrypting said entry information elements received from said information receiving means before producing encrypted entry information elements; information storing means for storing said encrypted entry information elements produced by said information encrypting means; information decrypting means for decrypting said encrypted entry information elements stored in said information storing means during said output operation period starting from said output start time kept by said time keeping means until said output end time kept by said time keeping means; time obtaining means for obtaining standard time information indicative of standard time kept by a standard clock; and time adjusting means for adjusting said time keeping means to have said time keeping means synchronized to said standard time on the basis of said standard time information obtained by said time obtaining means, and

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a sixteenth program product code for having said time obtaining means of each of said information processing apparatuses obtain said standard time information indicative of standard time kept by the standard clock to ensure that said time keeping means of each of said information processing apparatuses is synchronized to said standard time on the basis of said standard time information obtained by said time obtaining means.

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37. An information processing apparatus as set forth in claim 1, in which said output operation period is kept secret.

38. An information processing apparatus as set forth in claim 8, in which said input operation period is kept secret.

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